Wո	rk	$\Omega$	der	ID	70	951
VVU	11	VI	uei	112	/ V	フンI



Page 1

Monday, June 20, 2011 9:21:14 AM

Item ID:

D3268-1

Accept



Setup Start

Stop



**Revision ID:** 

Placard Item Name:

Required Date: 6/22/2011

6/20/2011

**Start Qty: 12.00** Req'd Qty: 12.00

**Cust Item ID: Customer:** 

Reference:

**Start Date:** 

Approvals:

Process Plan:

Date:

SPC (Y/N):

Date:

Date:

Run

Start

Stop



Sequence ID/

Operation

Set Up/

Tool ID

Tool # Plan Code Reject

Reject

Insp.

**Work Center ID Draw Nbr** 

Description

**Run Hours** 

Accept Qty

Qty

CZ 11/06/20

Number

Stamp

D3268 100

Purchasing

Purchasing

**PURCHASING** 

Rev A

**Revision Nbr** 

Memo

0.00

0.00

Issue P/O: \_\_\_\_\_\_\_\_ □D3268-1 Placard as per Dwg D3268□Material: White Letters on red adhesive back manufactured from 3M 7 MIL masking film # 8522CP or Avery IPM # 2031 □ Possible Supplier: Studio Lettrage □ Material

release note is required

110

Packaging Packaging

Identify as per dwg & Stock Location ST246A

0.00

Memo

0.00

120

QC

Quality Control

Memo

QC6- Inspect dimensions to drawing

#### **Dart Aerospace Ltd**

14/10	T			ODK ODDED OUANO	F0					
W/O:	,		W	ORK ORDER CHANG	ES					
DATE	STEP	PRO	CEDURE CH	ANGE	Ву		Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
										ļ
Part No	•	PAR #:	Fault Cat	egory:	_ NCR: Y	es N	o <b>DQ</b>	A:	Date:	
		esolution:								
NCR:		V	VORK OR	DER NON-CONFORMA	ANCE (N	CR)				
5475	0750	Description of NC			ion B		Verific	cation	Approval	Approval
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng		n & ate		ion C	Chief Eng	QC Inspector
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NOTE: Date & initial all entries

H:\fFORMS\Quality Assurance\approved QA\NCRWO RevE

#### Work Order ID 70951

Page 2

Monday, June 20, 2011 9:21:14 AM

Item ID:

D3268-1

Accept

Setup Start

Stop

**Revision ID:** 

Item Name: **Start Date:** 

Placard

6/20/2011

**Start Qty: 12.00** 

Operation

Description

Req'd Qty: 12.00



**Cust Item ID:** 

**Customer:** 

**Tool ID** 

Reference:

Approvals:

Required Date: 6/22/2011

Process Plan:

Date:

**Tooling:** 

Date:

Start

QC:

Date: SPC (Y/N): Date:\_

Stop

Sequence ID/ **Work Center ID** 

130

Packaging

Memo

Memo

Set Up/ **Run Hours** 

0.00

0.00

Tool # Plan Accept Qty Code

Reject Qty

Run

Reject Insp. Number Stamp

Packaging

140

Quality Control

QC21- Final Inspection - Work Order Release

Identify as per dwg & Stock Location:

0.00

0.00

## **Dart Aerospace Ltd**

W/O:			W	<b>ORK ORDER CHANG</b>	ES				
DATE	STEP	PRO	CEDURE CH	ANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
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<b></b>									
Part No	:	PAR #:	Fault Cat	egory:	NCR: Yes	No <b>DQ</b>	A:	Date: _	
	R	esolution:	Dispositi	on:	_ QA: N/C CI	osed:		Date: _	
NCR:		\	WORK ORE	DER NON-CONFORMA	NCE (NCR	3)			
DATE	STEP	Description of NC		Corrective Action Secti		Verifi	cation	Approval	Approval
DATE	SIEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Sect	ion C	Chief Eng	QC Inspector
		·							
								1	1

NOTE: Date & initial all entries

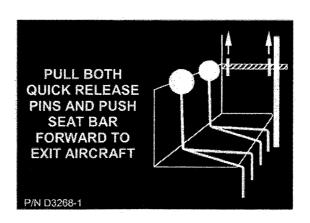
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Α		04.02.05	NEW ISSUE		





#### D3268-1

MATERIAL: WHITE LETTERS ON RED ADHESIVE BACK

MANUFACTURED FROM 3M 7 MIL MASKING FILM #8522CP OR AVERY IPM #2031

CX11106120 W10: 70951

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Dart Aerospace Ltd. 1270 Aberdeen Street Hawkesbury, ON K6A 1K7

Tel: 613 632 9577 Fax: 613 632 1053

#### **PURCHASE ORDER**

#### Purchase Order ID PO14323

Purchase Order Date 6/20/2011 PO Print Date 6/20/2011

Page Number 1 of 1

Order From:

VC-STU001

STUDIO DE LETTRAGE 2001

210 MAIN WEST

HAWKESBURY, ON K6A 2H6

CA

**Contact Name** 

Vendor Phone

613 632 5449

Vendor Fax

613 632 9491

Vendor Account Nbr

Buyer

Chantal Lavoie

Requisition Nbr Tax Resale Nbr

Terms

10127-2607

Currency

Net 30 CAD

**FOB** 

Destination-Collect

Ship To:

DART AEROSPACE LTD

1270 ABERDEEN

HAWKESBURY, ON K6A 1K7

**CANADA** 



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Li		Reference Revision ID	Description/ Mfg ID	Req Date/ Taxable Unit	Req Qty/ of Measure	Ship Method	Unit Price	Extended Price
_		Vendor Part Number						
1	D326	8-1P	Placard	6/22/2011	12.00	Yours ppd	\$3.7500	\$45.00
				Yes	Each		<i>i</i> • •	
							(a=28	

Special Inst:

AS PER DWG D3268 REV. A

B70951

PO Total:

\$45.00

CERTIFICATE OF CONFORMITY REQ'D UPON DELIVERY

No substitution or deviation without consent.

Certificate of Conformity or Material Certification required when applicable

Change Nbr:

T.F

Change Date: 6/20/2011

#### Studio de Lettrage

210 Main Street W Hawkesbury, Ontario K6A 2H6

#### INVOICE

Invoice No.:

15952

Date:

06/22/2011

Ship Date:

Page:

1

Re: Order No.

11074

Sold to:

Dart Aerospace Ltd

1270 Aberdeen Hawkesbury, Ontario K6A 1K7 Ship to:

Dart Aerospace Ltd

Hawkesbury, Ontario

Rusiness No.: 82500 7651 RT0001

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Shipped By:	Tracking				T. 4.1.4	it 84.7
Comment: PO	1,4323				Total Amour	04.7
Sold By:						

#### **Product Bulletin 8522**

**3M** 

Release F. Effective January 2003 Black bar in margin indicates a change

# Scotchcal <sup>™</sup> Opaque Imaging Media 8522

#### Description

This media is specially formulated to dry quickly after printing. Production of outdoor weatherable and long-term indoor durable graphics is now easier than ever. Its change-lable adhesive allows easy removal for up to one year.

#### Advantages

- Optimized for use with selected Epson Stylus Proprinters and Epson Archival inks.
- Optimized for use with selected HP DesignJet Printers and HP DesignJet Ink System UV or HP83UV Color Ink System
- For making opaque, laminated graphics that are outdoor weatherable and long-term indoor durable
- Media:
  - For opaque (reflective) graphics
  - Changeable, easy to remove from warranted substrates up\_to\_1 year later
  - Dries quickly after printing so the overlaminate can be applied almost immediately
  - Low slippage paper liner for superior tiling
- Overlaminates:
  - Provide additional UV (ultraviolet) and physical protection for making weatherable finished graphics
  - Available in luster and matte gloss
  - Adhesive allows for heat-assisted or cold-temperature lamination

#### **Applications and Uses**

3M \* Scotchcal \* Changeable Opaque Imaging Media 8522 is intended only for ink jet printing and for use with the listed Compatible Products and Equipment and the following applications. Any other application is NOT warranted by 3M or covered by the worldwide 3M ™ MCS ™ Warranty unless 3M gives its prior written approval for the application.

- First surface images (the image is on top of the film) for opaque posters and signs, including:
  - Graphics for vans, personal vehicles, trucks and buses
  - Novelty posters
  - Retail and point-of-purchase displays
  - Information graphics such as maps and directories
  - Entertainment promotions in museums, zoos, parks, theatres, sports venues
  - Education and presentation graphics

- Legal and courtroom exhibits
- For flat or simple curved surfaces, with or without rivers, used in vertical (± 10°) applications

#### Limitations of End Uses

The following uses and applications are specifically NOT warranted

- Fleet applications in areas that use salt for winter road maintenance
- Application to non-warranted substrates, including wallboard
- Applications subjected to gasoline vapors or spills
- Application to corrugated or highly irregular surfaces or sharply raised areas
- Graphics applied to stainless steel, including stainless steel vehicles
- On flat surfaces with rivets, tenting of 4 to 10 mm around rivets may be expected; rivets may be cut around to eliminate tenting.

Note: Standard ink jet technology is water based. Water-based chemistry is susceptible to the extremes of heat and humidity. This is a factor in most product constructions on the market. Read the Fabrication. Shelf Life and Storage sections in this bulletin. Staying in the middle of these ranges always provides optimum performance.

#### Compatible Products and Equipment

#### Thermal Ink Jet Printing Systems

- Epson Stylus Pro 9500, Stylus Pro 10000 printer
  - Epson Archival Inks
- Epson Stylus Pro 10600 printer
  - Epson Archival Inks
- HP DesignJet Printers 2000 and 3000 series
  - HP DesignJet Ink System UV (pigment-based ink)
- HP DesignJet Printers 5000 series
  - HP83UV Color Ink System

#### Overlaminates (required)

- 3M Luster Overlaminate 8519 (semi-gloss)
- 3M<sup>™</sup> Matte Overlaminate 8520

Note: For the full product names of the 3M products listed on this page, please see page 1.

#### **Warranted Substrates**

Media 8522 is warranted for use on the following rigid substrates.

Some substrates may "out-gas", resulting in tiny bubbles throughout the surface of the graphic. For maximum performance, be sure the substrate you select is properly cleaned and prepared as recommended by the manufacturer. See Instruction Bulletin 5.1 for additional information.

- Alodine (anodized aluminum)
- Automotive panels (automotive painted steel)
- Fruehauf (painted aluminum)
- FRP (fiberglass reinforced plywood)
- Glass
- Imron® (polyurethane-painted metal panel)
- Acrylic
- Sintra <sup>™</sup> board

## Test and Approve Non-warranted Substrates Before Use

Media 8522 is not warranted for any substrate other than those listed above. If you want to use it for other substrates, 3M recommends that you test and approve the media for both adhesion and removal characteristics.

#### Characteristics

Characteristic	Description
Media	7 mil, white, opaque graphic film
Liner	Low-slippage, lay flat paper
Adhesive	Changeable, pressure sensitive
Thickness (media and adhesive)	7.5 to 8 mil (nominal)
Application substrates	See Warranted Substrates, above
Application surfaces	Flat or simple curved surfaces, with or without rivets, used in vertical (± 10°) applications (no corrugations)
Application temperature range	28° to 110°F (-2° to 43°C) (air and surface)
Roll sizes	36" x 45 feet (914 mm x 13.5 m) 54" x 45 feet (1372 mm x 13.5 m)

## How to Become a 3M Ink Jet Registered Fabricator

Only 3M Thermal Ink Jet Registered Fabricators are eligible to offer 3M MCS warranted graphics. In order to become certified, a fabricator must complete the requirements as specified in the 3M Ink Jet Graphics Registered Fabricator Reference Manual located on the 3M website at www. scotchprint.com

## **Effective Performance Life**

To obtain the warranty given below, the graphics must be made according to 3M's recommendations which are detailed in the Warranty and Limited Remedies on page 3. Also see the section, Removability.

#### **Warranted Durability**

Media 8522 with	Epson Pr	inters	HP Printers		
Overlaminate 8519 or 8520	Outdoor	Indoor	Outdoor	Indoor	
Applied to Warranted Substrates	2 years	5 years	3 years	5 years	

#### Removability

Imaging media 8522 is removable from warranted substrates for 1 year without the aid of chemical strippers or accessories. Refer to Instruction Bulletin 4.23 for additional information.

#### **Fabrication**

Graphics must be made according to 3M's recommendations which are detailed in the Warranty and Limited Remedies on page 3.

See Instruction Bulletin 4.23 for detailed fabrication, printing and mounting information.

## **Graphic Construction Options**

#### Opaque (Reflective) Graphics

Opaque graphics made with imaging media 8522 require an overlaminate and an opaque substrate.

Overlaminate 8519, 8520
Adhesive on bottom

Imaging Media 8522
Image on top; adhesive on bottom

Opaque Substrate

Note: For the full product names of the 3M products listed on this page, please see page 1.

#### Shelf Life and Storage

- 3M \*\* Scotchcal \*\* Changeable Opaque Imaging Media 822 has a shelf life of one year.
- Storage conditions (new and partially used rolls). For optimum performance, use the middle of these ranges:
  - Original packaging, including plastic wrap
  - Relative humidity of 20% to 80%
  - Temperature of  $33^{\circ}$  to  $104^{\circ}$ F (0° to  $40^{\circ}$ C)
  - Away from direct sunlight
- Do not stack unprotected rolls or lay sharp or heavy objects on them.

#### **Health and Safety**

#### 

When handling any chemical products, read the manufacturers' container labels and the Material Safety Data Sheets (MSDS) for important health, safety and environmental information.

To obtain MSDS sheets for 3M products:

- By fax, call 1-800-364-0768 in the US and Canada or 1-650-556-8417 for all other locations.
- Electronically, visit us at http://www.3M.com/msds.
- By mail, or in case of an emergency, call 1 800-364-3577 or 1-651-737-6501.

When using any equipment, always follow the manufacturers' instructions for safe operation.

## **Warranty and Limited Remedies**

## 3M MCS Warranty for Graphics Produced on HP DesignJet Printers and Epson Stylus Pro Printers

The following is made in lieu of all other express or implied warranties, including any implied warranty of merchantability or fitness for a particular purpose: We warrant graphics produced by a 3M Ink Jet Registered Fabricator made with imaging regia 8522, printed on an approved HP thermal ink jet printer according to HP's recommendations or Epson Stylus Pro printer according to Epson's recommendations, overlaminated with 8519 or 8520, and applied to a Warranted Substrate according to 3M's recommendations. These

3M Canada

P.O. Box 5757

London, Ontario

Canada N6A 4T1

1 800-265-1840

Pax 519-452-6245

graphics are covered against failure caused by ultraviolet light, temperature extremes, pollution, and other elements.

If a graphic fails to perform in accordance with 3M product specifications within this time frame, 3M will replace the materials at no charge. These remedies are exclusive. In no case shall 3M be liable for any direct, indirect, or consequential damages, including any labor charges.

#### 3M Related Literature

Listed below is related 3M technical literature that may be of interest. You may view and print these Bulletins from our Web site at www.scotchprint.com, or order them via our Faxon-Demand (FOD) system. Call one of these phone numbers to order the desired bulletins, and specify the FOD document number provided in the chart.

United States or Canada: 1-8(X)-364-()768 International: 1-651-732-65()6

Subject	Bulletin No.	FOD No.
Product Bulletins	<u> </u>	
3M * Scotchcal * Overlaminate 8519 and 8520	8519/8520	4524
Instruction Bulletins	<del>لـــــــ</del> ـــــــــــــــــــــــــــــ	· · · · · · · · · · · · · · · · · · ·
Making thermal ink jet graphics	4.23	6523
Application, substrate selection, preparation and substrate-specific application techniques	5.1	7001
Warranties	<u> </u>	
Worldwide 3M ** MCS ** Warranty Packet (includes all Commercial Graphics MCS War	ranties)	9503
Worldwide 3M * MCS * Warranty Overview		9504

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#### **Bulletin Change Summary**

The Epson Stylus Pro Printers 9500, 10000 10600, and Epson Archival Inks have been added to this bulletin. Additional changes resulting from this addition are marked with black bars in the margin.

#### **3M**

Commercial Graphics Division 3M Center, Building 220-6W-06 PO Box 33220 St Paul, MN 55133-3220 USA General Into, 1-800-374-6772 Technical Into 1-800-328-3908

T.

Face 1-651-736-4233

Fax on-Demand T 800-364-0768 E 8/Canada or 1-651-732-6506 International Fax on Demand document: 4506 www.scotchprint.com

3M México, S.A. de C.V. Av. Santa Fe No. 55

Col. Santa Fe. Del. Alvaro Obregón México, D.F. 01210 52-55-52-70-04-00 Fax 52-55-52-70-22-77 3M Puerto Rico, Inc.

Puerto Rico Industrial Park PO. Box 100 Carolina, PR 00986-0100 787-620-3000 Eax 787-750-3035

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 Product Bulletin 8522 = 3